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09/771,537	01/29/2001	David Chaum		9618	
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DAVID CHAUM			GRAYSAY,	GRAYSAY, TAMARA L	
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SHERMAN OAKS, CA 91403			ART UNIT	PAPER NUMBER	
			3623		

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)
Section Comments	09/771,537	Chaum
[™] Office Action Summary	Examiner	Art Unit
The MAILING DATE of this annual of	Tamara L. Graysay	3623
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	66(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) day fill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).
Status		
1) Responsive to communication(s) filed on 2a) This action is FINAL . 2b) ☑ This 3) Since this application is in condition for allowan closed in accordance with the practice under E	action is non-final. ace except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 1-5 is/are pending in the application. 4a) Of the above claim(s) 3-5 is/are withdrawn f 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1 and 2 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or		
Application Papers		
9) The specification is objected to by the Examiner 10) The drawing(s) filed on 12 May 2001 is/are: a) Applicant may not request that any objection to the confidence of the c	☐ accepted or b) ☐ objected to be drawing(s) be held in abeyance. See on is required if the drawing(s) is obj	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applicati ity documents have been receive (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	

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DETAILED ACTION

Restriction

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - Claims 1 and 2, drawn to a voting system and method, classified in class 705, subclass 12.
 - II. Claims 3 and 4, drawn to a security printing system and method, classified in class 101, subclass 490.
 - III. Claim 5, drawn to a security intermediary method, classified in class 705, subclass 7.

The inventions are distinct from each other because:

- a. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require hiding the individual contributions. The subcombination as claimed has separate utility such as in a system for organizational decision making rather than voting for a candidate.
- b. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In

the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require an intermediary communication. The subcombination has separate utility such as in a system for organizational decision making rather than voting for a candidate.

c. Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as without a voter voting; and invention III has separate utility such as is a system without a printing apparatus. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter; the search required for Groups II and III is not required for Group I; and, as shown by their different classification, restriction for examination purposes as indicated is proper.

Election

2. An initial telephone call was made to Mr. David Chaum, sole inventor, on 12 October 2004 to request an oral election to the above restriction requirement, but did not result in an election being made. However, during later telephone conversations with Mr. David Chaum, sole inventor, on 18 and 25 October 2004 a provisional election was made with traverse to prosecute invention I, the voting system and method, claims 1 and 2.

Affirmation of this election must be made by applicant in replying to this Office action.

Claims 3-5 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Drawings

3. The paper filed 12 May 2001, including Fig.10, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the successive output of previous trustee (101); for each serial number, determining a first power as two raised to the shift amount (102); for each serial number, raise the second element to the first power determined (103); raise the second element for this trustee (104); raise both elements of each pair to the same random power unique to the pair (105); and successive output, all in same order (106). (NOTE: the word unique is misspelled in block 105.)

Applicant's remarks in the paper filed 12 May 2001 are not persuasive. Applicant argues that Fig.10 is included in the prior provisional application. While a claim of benefit to the previously filed provisional applications is noted at page 1 of the specification, the specification does not include a statement by which the provisional applications are incorporated by reference. Therefore, applicant may not rely on the prior provisional application(s) to support the newly filed Fig.10.

Applicant is required to cancel the new matter in the reply to this Office Action.

Applicant must amend the specification to delete reference to Fig.10, and renumber the remaining drawing figures accordingly.

Alternatively, applicant may file a revised Fig.10 that is limited to the subject matter that is supported by the original disclosure. For example, applicant may revise Fig.10 to include a block diagram and the reference characters, the descriptions of which are supported by the

original disclosure.

- 4. Further, the drawings filed 12 May 2001 are objected to
 - a. because the word unique is misspelled in Fig.11, block 113.
 - b. because reference character 172 should be added to Fig.17a insofar as it is mentioned in the specification at P.33, L.37 with regard to Fig.17a.
 - c. because reference character 172a is mentioned in the specification with regard to Fig.17b; however, it does not appear in Fig.17b.
 - d. because the word cancel is misspelled in Fig.31, element 317.
 - e. as failing to comply with 37 CFR 1.84(h) because
 - i. Fig.17a, 17b, 17c, 17d, 18a, 18b, 24a and 24b are not separate figures insofar as the outline of each figure overlaps the adjacent figure (each figure's outline includes the lead lines and their associated reference characters);
 - ii. Fig.17a and 17b are not clearly separated from one another, i.e., there are lead lines and a reference character connecting the figures; and,
 - iii. Fig.17c and 17d are not clearly separated from one another, i.e., there are lead lines and a reference character connecting the figures.
 - f. as failing to comply with 37 CFR 1.84(h)(5) because modified forms of construction (if applicant intends to show the modified forms discussed at P.44, L.12-14) must be shown in separate figures. In contrast dashed lines may be used to depict alternate position views (37 CFR 1.84(h)(4)).

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g. as failing to comply with 37 CFR 1.84(p)(4) because in Fig.37 the reference character 372c that is connected by a lead line to the processor should be 372e because 372c is used to designate the user biometric reader/sensor.

- h. as failing to comply with 37 CFR .184(p)(5) because
 - i. reference character 54 appears at the bottom of Fig.5 but is not mentioned in the description;
 - ii. reference character 193a appears at the top right of Fig. 19 but is not mentioned in the description;
 - iii. reference character 211 does not appear in Fig.21; however, it is mentioned with regard to the "pad" in the specification at P.35, L.20;
 - iv. reference character 398 appears at the right half of Fig.39 but is not mentioned in the description; and
 - v. reference character 406 is used to depict both the shredder at the lower left of Fig.41 and the sensor head at the upper left of Fig.41 and at Fig.40b and Fig.40d.
- i. as failing to comply with 37 CFR 1.84(q) because the reference character 184d (Fig.18a) does not have the required lead line or underline.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If

the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

- 5. The abstract of the disclosure is objected to because it should be limited to a single paragraph. Correction is required. See MPEP § 608.01(b).
- 6. The use of the following trademarks has been noted in this application:
 - a. P.18, L.11, Votomatic, punched-card vote recording machine
 - b. P.20, L.15, Mylar, flexible synthetic film base
 - c. P.23, L.34, GPS, navigation radio having receiver and display
 - d. P.24, L.24, Rohm, integrated circuitry

Each trademark should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informalities, which are exemplary in nature:

a. P.1, L.21, know should be known.

- b. P.2, L.23-24, the brief description of Fig.10 should be deleted, as noted in paragraph 3, above.
- c. P.2, L.27, Fig. 11 should be Fig. 12.
- d. P.3, L.5, the acronym "PIN" should be spelled out at least at its first occurrence in the specification.
- e. P.4, L.9-11, is inconsistent with P.4, L.35 and P.29, L.26-27. In particular L.9-11 read that the trustees do not participate in the third phase (deciding which ballots ... to count, see P.4, L.8)); however, P.4, L.35 reads that it is agreed among the trustees which ballots not to count and P.29, L.26-28 reads that the trustees may decide which ballots to count. If the trustees do not participate in deciding which ballots to count, then how can the trustee agree (i) which ballots not to count or (ii) which ballots to count? The inconsistency must be clarified.
- f. P.18, L.29, the acronym PIN is not all capital letters.
- g. P.24, L.10, the acronym OCR should be spelled out at least at its first occurrence in the specification.
- h. P.23, L.34, the trademark GPS is used. If applicant is not intending to use the trademark then the term should be spelled out rather than using the trademark. Also, note paragraph 6, above.
- i. P.28, L.2, reference character 10n does not appear in Fig.1. The figure depicts trustee n using reference character 10c. The reference character used in the figure and in the description should be consistent.

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- j. P.29, L.4, the step 45 is described as printing the envelopes and their serial numbers; however, Fig.4 depicts step 45 as printing ballots. It is unclear whether the steps are consistent since different terminology is used in the specification and figure. A similar inconsistency appears in Fig.5 at step 51 and P.29, L.10.
- k. P.29, L.14, it appears that reference character 56 should be 55; however, there appears to be an inconsistency between the description at L.14-19 and the step depicted in block 55 of Fig.5.
- 1. P.29, L.26, reference character 61 should be 62 as depicted in Fig.6.
- m. P.29, L.28, reference character 62 should be 61 as depicted in Fig.6.
- n. P.30, L.4, the term show should be shown.
- o. P.31, L.16-17, mentions discovering the value of the public position by trial and error; however, the step depicted in Fig. 12 is searching for the power-difference of each pair. The terminology in the specification is not consistent with that used in the drawings, as a result, there appears to be an inconsistency between the step described in the specification and the step depicted in the drawings.
- p. P.34, L.7, the use of the term voter/intermediary is confusing since the voter and intermediary are different entities and the use of the diagonal or slash mark throughout the specification is generally for terms that are interchangeable or equivalent. For example, trustee/server, slot/area, into/onto, substantially difficult/inconvenient, user/voter.
- q. P.34, L.12, the second occurrence of reference character 173 should be 174.
- r. P.35, L.9, reference character 201 should be 202 as depicted in Fig.20.

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- s. P.35, L.9, reference character 202 should be 201 as depicted in Fig.20.
- t. P.35, L.19-23, reference character 211 is used to refer to both the keypad and digits. Reference character 210 depicts the digits in Fig.21 and reference character 211 does not appear in Fig.21. Also, see paragraph 4, above.
- u. P.35, L.20 and 23, reference character 211 should be 210 as depicted in Fig.21.
- v. P.35, L.25, code 0047 is not consistent with the control vote that appears in Fig.21 at keypad digit 9. Also, the upper and lower codes are the same for more than one digit.
- w. P.35, L.29 and 33, Fig.22a and Fig.22b are mentioned in the description, but they are not designated in Fig.22.
- x. P.36, L.12, the word time should be times to correct a grammatical error.
- y. P.36, L.20, reference character 24c should be 242c as depicted in Fig.24a.
- z. P.37, L.8, reference character 10 should be 13.
- aa. P.37, L.35-38, the reference characters mentioned are not included in Fig.28 or 38, but rather Fig.39. Applicant should mention Fig.39 along with the reference characters that are depicted in Fig.39. Also, reference character 395b does not appear to lock up the button (reference character 393b appears in Fig.39 to depict the lock-up mechanism (output); and reference character 383 appears in Fig.38 to depict the button). Applicant should clarify the inconsistency. Moreover, the terminology used for reference character 384 is confusing because both "feedback" and "user interface output" are used in the specification at P.37, L.37, and in Fig.39, respectively.

bb. P.38, L.31 and P.39, L.22, reference characters 301x and 302x do not appear in the drawings. Applicant may consider using 301 and 302 when generally referring to the candidate name.

- cc. P.38, L.31, reference character 301a should be 302a as depicted in Fig.30.
- dd. P.39, L.25, the term cod should be code to correct a typographical error.
- ee. P.40, L.35, reference character 331 should be 311 as depicted in Fig.33 for the display device.
- ff. P.41, L.35, the term "exclusive-or'ed" should be defined.
- gg. P.42, L.35, reference character 362 is mentioned in the specification; however, it does not appear in the drawings.
- hh. P.42, L.37, reference character 363 should be 364 as depicted in Fig.36.
- ii. The drawings and specification must be consistent in the use of the reference characters and the terminology for the various elements. At P.43, L.6-10, reference character 373 is used for both of the terms "network/intermediary" and "middle layer;" at P.43, L.11+ reference character 375 is used for the term "intermediary;" at P.43, L.31, reference character 375 is used for the term "network." It appears from the drawings, Fig.37, that the middle layer 373 is comprised of the network 376 (having an intermediary 375), software 377, and operators 378.
- jj. P.44, L.12-14, describes the line connecting the ballot 11 and UI input 372b as broken. However, Fig.37 has a solid line. The examiner notes that broken lines are reserved for alternate positions (37 CFR 1.84(h)(4)) whereas modified forms are to be shown in separate figures (37 CFR 1.84(h)(5). Therefore, the description of the figure

contained in the specification and the form of the invention depicted in the figure should be consistent. Also, see paragraph 4, above.

- kk. P.45, L.1, s should be is to correct a typographical error.
- ll. P.45, L.3, mentions a communication subsystem 394, which does not appear in the drawings.
- mm. P.45, L.5, reference character 395b should be 393b as shown in Fig.39.
- nn. P.45, L.5-7, describes a broken line as input from processor 391 to highlight modified form of the invention. However, the line from the processor 391 to the ballot marker 396 is solid. The examiner notes that broken lines are reserved for alternate positions (37 CFR 1.84(h)(4)) whereas modified forms are to be shown in separate figures (37 CFR 1.84(h)(5). Therefore, the description of the figure contained in the specification and the form of the invention depicted in the figure should be consistent.
- oo. P.45, L.12 and 15, 40c should be 40d as shown in Fig.40.
- pp. P.45, L.12, 40d should be 40c as shown in Fig.40.
- qq. P.45, L.27, the phrase a exit processors is grammatically incorrect.
- rr. P.45, L.39, reference character 405 should be 406 as shown in Fig.41.
- ss. P.45, L.39 and P.46, L.1, reference character 413 should be 313 as shown in Fig.41.
- tt. P.45, L.39 to P.36, L.1, reference character 406 is used to describe both the shredder and the sensor head. Also, see paragraph 4, above.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consistent terminology is required in the claims. Claim 1, line 5, the term "confidential challenge information" lacks clear antecedent basis; however, it has been treated as "confidential challenge values;" and claim 1, line 7, the term "confidential response information" lacks clear antecedent basis; however, it has been treated as "confidential response values" for purposes of this action on the merits.

Claim 2, line 4, there is no antecedent basis for "those who have obtained printed media" because the only step recited in antecedent is that of supplying the values to the printer for printing. Without a printing step or obtaining step prior to the receiving step, the recitation of "those who have obtained printed media" lies without basis in the claim. Such lack of positive recitation in the method renders the claim unclear as to its metes and bounds, i.e., whether the step of printing the media is within the scope of the claim, whether the step of obtaining the printed media is within the scope of the claim.

Consistent terminology is required in the claims. Claim 2, lines 4 and 5, "challenge data" and "challenge information" lack clear antecedent basis; however, they have been treated as "challenge value;" and line 5, "response information" lacks clear antecedent basis; however, it has been treated as "response value" for purposes of this action on the merits.

Claim 1, line 1, the preamble should be consistent with the body of the claim. At line 1, the recitation "voting system method" should be voting method, insofar as the term "system" in the preamble is generally limited to an apparatus claim; whereas the body of claim 1 recites method steps.

Claim 1, line 2, the method includes the step of establishing confidential challenge and response values. The metes and bounds of patent protection sought are unclear because the claim and disclosure do not set forth how the values are established. The disclosure does not provide antecedent basis for the claim terminology. Therefore, the claim is indefinite.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 9. Claim 2 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The basis of this rejection is set forth in a two-prong test: (1) whether the invention is within the technological arts; and (2) whether the invention produces a useful, concrete, and tangible result.
 - a. As to the first prong, for a claimed invention to be statutory the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

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In the present case, even though a practical application of providing values to a trustee and the trustee responding based on those values is recited in process claim 2, the claimed process lacks a tie to any technological art. The process claims do not recite any limitations that involve a technology, and the claimed process steps do not require use of any technology to implement the invention.

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Further, mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. The claimed process must utilize technology in a non-trivial manner. In the present case, even though the process of claim 2 applies, involves, or uses technology by supplying values to a printer system, it is a nominal use of technology and falls short of non-trivial utilization of technology. The recited steps of supplying values to a printer system, receiving a value, and responding with another value do not apply, involve, use, or advance the technological arts since all of the recited steps can be performed by use of a pencil and paper. Therefore, the claimed method does not positively recite a non-trivial use of technology.

b. As to the second prong, for a claimed invention to be statutory the claimed invention must produce a useful, concrete, and tangible result.

In the present case, the claimed invention is a method of a trustee supplying two values to a printer, the trustee receiving one of the values, and the trustee responding with the other value. There is no result produced by the

claimed method that is useful, concrete, and tangible, i.e., there is no transformation of data.

In conclusion, process claim 2 does not meet the either the prong of the two-prong test because it does not produce a useful, concrete, and tangible result, and, it does not meet the first prong because it is not within a technological art, as explained above. Therefore, process claim 2 is deemed to be directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by McClure (US-6250548).

Regarding claim 1, McClure discloses a voting method comprising the steps of a trustee (election official C.36, L.59-61; and Internet software C.37, L.36) establishing confidential challenge (issue number C.36, L.60+; and encrypted ballot data C.37, L.26-29) and response values (decrypted data C.37, L.30-32; and confirmation C.37, L.36); a printing device (computer monitor display C.37, L.21); transferring printed media to voter (ballot ... viewed from the voter's computer monitor C.47, L.20-21); the voter voting (activates the cast ballot button C.37, L.25) by supplying the challenge value (the ballot includes an identification file including the issue number C.37, L.13-14; and the

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Internet software encrypts the data C.37, L.26-29); and the trustee (election official and Internet software) confirming that the vote was received (Internet software transmits a confirmation C.37, L.36).

Regarding claim 2, McClure discloses a trustee (election official C.36, L.59-61; and Internet software C.37, L.36) supplying confidential challenge (issue number C.36, L.60+; and encrypted ballot data C.37, L.26-29) and response values (decrypted data C.37, L.30-32; and confirmation C.37, L.36) to a printer (computer monitor display C.37, L.21); the trustee receiving challenge data (the ballot includes an identification file including the issue number C.37, L.13-14; and the Internet software encrypts the data C.37, L.26-29); and the trustee responding with response value (decrypted data).

Conclusion

- 11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - Congressional Digest (publication, A glossary of political terms) teaches a secret ballot prepared at public expense and distributed to the voters at the polls; and, the use of symbols to represent candidate parties.
 - Changing Times (article, What good are voting machines) teaches a fraud resistant voting method using a voting machine.
 - Tsuchida (JP-08016679-A) teaches a voting method which matches voter personal information at a voting terminal.

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- Kilian (US-6092051) teaches a voting method which includes a trustee (vote generating center) establishing challenge (encrypted, shuffled, conveyed) and response values (validation) that are used by the voter and trustee respectively.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (703) 305-1918. The examiner can normally be reached on Mon - Thu and alternate Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tg.

TARIO'R. HAFIZ SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600